REMARKS

I. Introduction

In response to the Office Action dated August 26, 2004, claims 12, 24, and 36 have been cancelled, and claims 1, 13, and 25 have been amended. Claims 1-11, 13-23, and 25-35 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Prior Art Rejections

In paragraphs (1)-(2) of the Office Action, claims 1, 6, 7, 12, 13, 18, 19, 24, 25, 30, 31, and 36 were rejected under 35 U.S.C. §102(e) as being anticipated by Caughran et al., U.S. Publication No. 2002/0107029 (Caughran). In paragraphs (3)-(4) of the Office Action, claims 2-5, 14-17, and 26-29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Caughran in view of Oprescu-Surcobe et al., U.S. Patent No. 5,842,130 (Oprescu-Surcobe). In paragraph (5) of the Office Action, claims 8-11, 20-23, and 32-35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Caughran in view of Rangarajan et al., U.S. Patent No. 6,757,544 (Rangarajan).

Applicants respectfully traverse these rejections.

Specifically, the independent claims were rejected as follows:

> Regarding claims 1, 13 and 25, Caughran discloses an apparatus/method/article for locating a mobile device, comprising an application programming interface (API), executed by a computer, for providing a plurality of simplified procedures that allow an application program executed by the computer to locate the mobile device (0012, 0017), wherein: (a) the application program invokes the simplified procedures of the API (0017); and (b) the invoked procedures obtain: (i) a location of the mobile device given an identification of the mobile device (0023), wherein: (1) the invoked procedures interact with specifics for a mobile positioning server of a carrier of the mobile device (0017, 0018); and (2) the invoked procedures interact with different methods of identifying the device as required by the carrier (0023); (ii) a description of a spatial reference system associated with the location (0020).

Applicants traverse the above rejections for one or more of the following reasons:

(1) Caughran, Oprescu-Surcobe, Rangarajan do not teach, disclose or suggest the ability for an API to interact with multiple positioning servers for different carriers that each utilize different method for identifying devices; and

(2) Caughran, Oprescu-Surcobe, Rangarajan do not teach, disclose or suggest the ability to add a new method for identifying and locating a device dynamically without having to deploy a new API or application program.

Applicants submit that the present invention provides significant advantages and flexibility in determining the location of a mobile device. Applicants note that different mobile device carriers use different methods and protocols for providing location information and for identifying a device. (see background page 4, paragraph [0013] of the present invention). Accordingly, when an application desires to obtain location based information and use such information, the application must accommodate each method and protocol for each mobile service carriers for each mobile device whose location information is desired. In the prior art (including under Caughran and the other cited references), the application itself must incorporate each method and protocol. Accordingly, when a new carrier enters the field or a new/different method is used by a carrier, the application itself must be adjusted and redeployed (see paragraphs [0013]-[0015] of the present invention). The present invention avoids such alterations. The present invention makes use of an application programming interface (API) that allows new methods/protocols to be dynamically added to the system without redeploying the entire program or API.

Independent claims 1, 13, and 25 are generally directed to locating a mobile device. More specifically, an application program such as a location based application uses an API to locate a mobile device. The API shields the application from having to maintain knowledge of how to communicate and obtain location based information from individual mobile device carriers. To shield the application program, the API is configured to interact with two or more mobile positioning servers for multiple carriers of two or more mobile devices. Further, the API interacts with two or more different methods for identifying the mobile device as required by the different carriers. In addition, when a new method for identifying a device needs to be used (e.g., when a new mobile device carrier is added to the industry), the method may be dynamically deployed instead of having to deploy an entirely new API or application program that is configured to use the new carrier and method.

The cited references do not teach nor suggest these various elements of Applicants' independent claims.

Caughran merely describes a wireless telecommunications system (100) including a service control point (108) that implements a geographical interface that permits applications to request and receive geographical zone data for a mobile unit (101). The request (300) for geographical zone data identifies the mobile unit (302) and the type of zone requested (304). A zone manager (204) receives

the request and communicates the request to a location manager (202). The location manager (202) is coupled to a position determination equipment (110) to determine a location of the mobile unit. The location manager returns the location of the mobile unit to the zone manager. The zone manager uses the location of the mobile unit, the zone type requested and a database of predefined zones to determine a zone for the current location of the mobile unit. The zone of the mobile unit is returned to applications via a response (400). (See Abstract).

However, Caughran fails to describe the ability to interact with multiple different positioning servers for different carriers of mobile devices. To teach the interaction with specifics for mobile positioning servers and the use of different methods, the Office Action relies on paragraph [0017],[0018], and [0023] of Caughran. However, paragraph [0017] merely describe a provisioning and management system 112 that communicates with a particular service control point 108. Additionally, paragraph [0018] merely describes FIG. 2 and the details for the service control point 108. In this regard, neither paragraph [0017] or [0018] describe the ability for procedures within an API to interact with specifics for multiple positioning servers and multiple methods for identifying a mobile device. Further, neither provisioning and management system 112 nor SCP 108 provide an API for an application program. Nowhere in Caughran is there any description of an application program that invokes simplified procedures of an application programming interface. In this regard, Applicants submit that SCP is not an API.

In addition to the above, Applicants submit that Caughran fails to provide the ability to dynamically add a new method for identifying a mobile device as required by a carrier. Caughran fails to teach, describe, or suggest the use of new position determination equipment 110 or a dynamic addition of such new equipment without having to deploy a new API or application program. The Office Action relies on Caughran paragraph [0017] to teach the elements from prior claims 12, 24, and 36 relating to the dynamic deployment. However, such dynamic deployment is not taught, described, suggested, or alluded to, implicitly or explicitly, in paragraph [0017] or elsewhere in Caughran. Nowhere in paragraph [0017] (or the remainder of Caughran) is there a description, implicit or explicit, that even remotely references the ability to add a new method, carrier, protocol, or the dynamic addition of such a method. Instead, paragraph [0017] states that SCP 108 may be a processor based apparatus that uses computer programs to implement its functions or may be implemented with interface circuits, combinatorial logic, and/or sequential

logic. Such a teaching does not describe dynamic deployment of a new method without having to redeploy a new SCP 108, provisioning and management system 112 or other system component.

The Office Action also relies on paragraph [0023] in rejecting the claims with respect to the multiple methods for identifying the mobile device. However, paragraph [0023] merely describes using an MS identifier as the identity of the device. In this regard, Caughran completely fails to describe an API that is configured to use multiple different methods for identifying a device as required by a carrier. Instead, Caughran only uses a single method – an MS identifier 302 and fails to describe the use of multiple methods. In this regard, Caughran fails to provide the flexibility and advantages of the present invention.

In addition to the above, Applicants note that the other references also fail to cure Caughran's deficiencies. Moreover, the various elements of Applicants' claimed invention together provide operational advantages over Caughran, Oprescu-Surcobe, and Rangarajan. In addition, Applicants' invention solves problems not recognized by Caughran, Oprescu-Surcobe, and Rangarajan.

Thus, Applicants submit that independent claims 1, 13, and 25 are allowable over Caughran, Oprescu-Surcobe, and Rangarajan. Further, dependent claims 2-11, 14-23, and 26-35 are submitted to be allowable over Caughran, Oprescu-Surcobe, and Rangarajan in the same manner, because they are dependent on independent claims 1, 13, and 25, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 2-11, 14-23, and 26-35 recite additional novel elements not shown by Caughran, Oprescu-Surcobe, and Rangarajan.

III. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

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